

PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 7:

G06F 3/147, G09G 3/34

(11) International Publication Number:

WO 00/26761

A1

(43) International Publication Date:

11 May 2000 (11.05.00)

(21) International Application Number:

PCT/US99/25785

(22) International Filing Date:

2 November 1999 (02.11.99)

(30) Priority Data:

60/106,713

2 November 1998 (02.11.98)

US

(71) Applicant: E INK CORPORATION [US/US]; 45 Spinelli Place, Cambridge, MA 02138 (US).

(72) Inventors: ALBERT, Jonathan, D.; 346 Putnam Avenue, Cambridge, MA 02139 (US). WILCOX, Russell, J.; 17 Winnemay Street, Natick, MA 01760 (US). GATES, Holly, G.; Apartment 2, 115 Porter Street, Somerville, MA 02144 (US).

(74) Agent: LANZA, John, D.; Testa, Hurwitz & Thibeault, LLP, High Street Tower, 125 High Street, Boston, MA 02110 (81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published

With international search report.

Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

(54) Title: BROADCAST SYSTEM FOR DISPLAY DEVICES MADE OF ELECTRONIC INK

(57) Abstract

A system for centrally controlling and updating electrically active displays distributed at a single site or at multiple sites. The printed display can be used in a variety of applications. It can be used as an indicator by changing state of the display after a certain time has elapsed, or when a certain pressure, thermal, radiative, moisture, acoustic, inclination, pH, or other threshold is passed. In one embodiment, the display is incorporated into a battery indicator. A sticker display is described which is adhesive backed and may then be applied to a surface to create a functional information display unit. This invention also features a display that is both powered and controlled using radio frequencies. The system includes an antenna or antennae, passive charging circuitry, and active control system, a display, and an energy storage unit. There is also a separate transmitter that provides the remote power for the display. The system is meant to be used anywhere it is useful to provide intermittent updates of information such as in a store, on a highway, or in an airport. A tile-based display allowing a modular system for large area display is created using a printable display material.

